

LIST OF CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

1. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

receiving, from a mobile station, a plurality of mobile station capabilities and

selecting one of a plurality of transmit configurations using at least one of the plurality of mobile station capabilities received, the plurality of mobile station capabilities including at least two capabilities from a list including a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input/multi-output configuration.

2. (Previously Presented) The method of claim 21 further comprising:

receiving information on mobility of the mobile station; and wherein, the selecting step selects one of the plurality of transmit configurations using at least one of the plurality of mobile station capabilities, channel quality information, and the information on the mobility of the mobile station.

3. (Canceled)

4. (Previously Presented) The method of claim 21 wherein, the channel quality information includes information on a carrier to noise ratio of a communication channel.

5. (Previously Presented) The method of claim 21 wherein, the channel quality information includes information on a signal to noise ratio of a communication channel.

6. (Previously Presented) The method of claim 21 wherein, the channel quality information includes information on an error rate.

7. (Previously Presented) The method of claim 21, wherein the step of selecting comprises selecting a single antenna transmit configuration.

8. (Previously Presented) The method of claim 21, wherein the step of selecting comprises selecting a selection transmit diversity transmit configuration.

9. (Previously Presented) The method of claim 21, wherein the step of selecting comprises selecting a space time spreading transmit configuration.

10. (Previously Presented) The method of claim 21, wherein the step of selecting comprises selecting a multi-output and multi-input transmit configuration.

11. (Previously Presented) The method of claim 21, wherein the step of selecting comprises selecting a configuration that selects one of a plurality of transmit antennas.

12. (Previously Amended) The method of claim 21, wherein the step of selecting comprises selecting a configuration that transmits using a plurality of transmit antennas.

13. (Original) The method of claim 12, wherein the step of selecting comprises selecting a configuration that transmits using a plurality of transmit antennas, where each antenna uses a different orthogonal code.

14. (Original) The method of claim 13, wherein the step of selecting comprises selecting a configuration that transmits using a plurality of transmit antennas, where each antenna uses a different Walsh code.

15. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

receiving, from a mobile station, mobility information of the mobile station and a plurality of transmit configurations;

selecting at least one of the plurality of transmit configurations received using the mobility information received, the plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

16. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

sending, from a mobile station, a plurality of mobile station capabilities;
and

receiving, by the mobile station, a selected transmit configuration of a plurality of transmit configurations that is based on at least one of the mobile station capabilities sent, the plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

17. (Previously Presented) The method of claim 24, further comprising:

sending, from the mobile station, mobility information of the mobile station and wherein,

the receiving, by the mobile station, includes receiving the selected transmit configuration that is based on the channel quality information sent, the mobility information sent, and at least one of the mobile station capabilities sent.

18. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

sending, from a mobile station, mobility information of the mobile station; and

receiving, by the mobile station, a selected transmit configuration of a plurality of transmit configurations, the plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

19. (Previously Presented) The method of claim 21 further comprising:
communicating the selected transmit configuration to the mobile station over a control channel.

20. (Previously Presented) The method of claim 19 wherein, the control channel is at least one of a paging channel and synchronization channel.

21. (Previously Presented) The method of claim 1 further comprising:
receiving channel quality information and wherein,
the selecting step includes selecting one of the plurality of transmit configurations using the channel quality information received and at least one of the plurality of mobile station capabilities received.

22. (Previously Presented) The method of claim 21 wherein, the plurality of mobile station capabilities includes a plurality of transmit configurations supported by the mobile station.

23. (Previously Presented) The method of claim 15 further comprising:
receiving channel quality information and wherein,
the selecting step includes selecting one of a plurality of transmit configurations received using the mobility information received and the channel quality information received.

24. (Previously Presented) The method of claim 16 further comprising:
sending, from the mobile station, channel quality information and
wherein,

the receiving, by the mobile station, includes receiving a selected transmit configuration that is based on the channel quality information sent and at least one of the plurality of mobile station capabilities sent.

25. (Previously Presented) The method of claim 18 further comprising:

sending, from the mobile station, channel quality information and wherein,

the receiving, by the mobile station, includes receiving the selected transmit configuration based on the mobility information sent and the channel quality information sent.

26. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

receiving, from a mobile station, channel quality information and a plurality of transmit configurations supported by the mobile station;

selecting one of the plurality of transmit configurations received using the channel quality information received, the plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

27. (Previously Presented) The method of claim 26 further comprising transmitting using the selected one of the plurality of transmit configurations.

28. (Previously Presented) A method for reconfiguring a communication system, comprising the steps of:

sending, from a mobile station, a plurality of transmit configurations supported by the mobile station; and

receiving, by the mobile station, a selected transmit configuration that is based on at least one of the plurality of transmit configurations sent, the plurality of transmit configurations including at least two of a single transmit antenna configuration, a space time spreading configuration, a selective transmit diversity configuration, and a multi-input configuration.

29. (Previously Presented) The method of claim 28 further comprising receiving, by the mobile station, transmissions using the selected transmit configuration.

30. (Previously Presented) The method of claim 1, wherein, the single transmit antenna configuration involves receiving, using a first single antenna, a signal from one antenna of the mobile station used to transmit the signal; the selective transmit configuration involves selecting one of a plurality of antennas to communicate with the one antenna of the mobile station; the space time

spreading configuration involves using a plurality of antennas to communicate with the one antenna of the mobile station; the multi-input configuration involves using a plurality of antennas to communicate with a plurality of antennas of the mobile station.